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Amdt. dated 09/20/2004
Reply to Office Action of 05/19/2004

## REMARKS

This Amendment is in response to the Office Action mailed 05/19/2004. In the Office Action, the Examiner rejected claims 1-5 and 11-46 under 35 U.S.C. § 102, and rejected claims 6-10 under 35 U.S.C. § 103. No claims are amended. Reconsideration in light of the remarks made herein is respectfully requested.

### *Rejection Under 35 U.S.C. § 102*

2.     The Examiner rejects claims 1-5, 11-15, 16-21, 22-31, 32-41, and 42-46 under 35 U.S.C. § 102(e) as being anticipated by Arrow et al. (6,175,917).

Per claim 1, the Examiner asserts that Arrow discloses the management traffic is sent over the VPN (virtual private network) itself, citing Figure 1. Figure 1 shows a VPN Management Station 160 connected to a Public Network 100 and a plurality of VPN Units, such as VPN Unit 115, connected to the Public Network 100. Figure 1 of Arrow merely shows that the VPN Management Station 160 is connected to the Public Network 100. This does not show that the VPN Management Station 160 sends management traffic over the VPN. Applicant is unable to find anything in Arrow to support the inference that management traffic is sent over the VPN. To the contrary Arrow discloses that, "VPN management station 160 controls VPN units 115, 125 and 135 through commands and configuration information transmitted to the respective VPN unit through public network 100." Col. 6, lines 31-34. Thus Arrow does not disclose each and every element of the claim.

Per claim 2, the Examiner asserts that Arrow discloses the management traffic using secure in-band management due to the use of at least the encryption of column 7. Applicant

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respectfully disagrees. Nothing in column 7 discloses that the VPN Management Station 160 is a member of any VPN nor that management traffic is encrypted or sent over a VPN.

Per claim 3, the Examiner asserts that Arrow discloses a one or more management port 414 is linked with the VPN for management thereof. Applicant respectfully disagrees. Figure 4 shows a network communication port 414 connected to the public network 100. Applicant submits that nothing in Arrow discloses that the network communication port 414 is a management port as claimed.

Per claim 4, the Examiner asserts that Arrow discloses a management function (i.e. Figures 5 and 6) internal to 115 is linked with the VPN via the schematic of Figure 4. Applicant respectfully disagrees. Figure 4 shows a network communication port 414 connected to the public network 100. Applicant submits that nothing in Arrow discloses that the management function internal to the network device is linked with the VPN as claimed.

Per claim 5, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

Per claim 11, the Examiner asserts that the method steps are met by configuring VPN unit 115 to support a VPN via section 160 and linking a management device 160 and its function with the VPN. Applicant respectfully disagrees. Applicant is unable to find anything in Arrow to support the inference that a management device and its function are linked with the VPN. As disclosed in column 9, the management device 160 of Arrow may be used to boot load the VPN unit 115 and to configure the unit. One skilled in the art would reasonably infer that the VPN

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Management Station 160 does <u>not</u> send management traffic over the VPN because the

Management Station provides commands for <u>establishing</u> a virtual private network that operates

over a public network. If the VPN Management Station 160 is used to <u>establish</u> a virtual private

network, the VPN Management Station cannot communicate with the VPN Units to establish the

VPN using the VPN that is not yet established.

Per claim 12, the Examiner asserts that Arrow discloses the management traffic is carried

over the VPN itself. As discussed above in connection with claim 11, the management device

would be unable to communicate with VPN units to establish a VPN before the VPN is

established.

Per claim 13, the Examiner asserts that Arrow discloses the network device 115 is

managed using the VPN carried management traffic. Applicant respectfully submits that the

network communication port 414 is <u>not</u> a management port as claimed. As discussed above in

connection with claim 11, the network device could not be managed using VPN carried

management traffic before the VPN is established.

Per claim 14, applicant relies on the patentability of the claims from which this claim

depends to traverse the rejection without prejudice to any further basis for patentability of this

claim based on the additional elements recited.

Per claim 15, applicant relies on the patentability of the claims from which this claim

depends to traverse the rejection without prejudice to any further basis for patentability of this

claim based on the additional elements recited.

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Per claim 16, the Examiner asserts that the VPN unit 115 is configured to support a VPN with a link that links a management function with the VPN via port 414. Applicant respectfully disagrees. Applicant is unable to find anything in Arrow to support the inference that a management function is linked with the VPN unit using the VPN. As discussed above in connection with claim 11, the management function would be unable to communicate with VPN units to establish a VPN before the VPN is established.

Per claim 17, the Examiner asserts that Arrow discloses the routing and forwarding module delivers management traffic on the VPN for the network device 115. Applicant respectfully submits that the network communication port 414 is not a management port as claimed. As discussed above in connection with claim 11, the management traffic would be unable to establish a VPN on the network device before the VPN is established.

Per claim 18, as discussed above in connection with claim 11, the network device could not be managed using VPN carried management traffic before the VPN is established.

Per claim 19, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

Per claim 20, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

Per claim 21, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

Per claim 22, the Examiner asserts that the "means+function" are met by the means for receiving management traffic over the VPN, at for example, 414 and that the means for managing the network device using the management traffic received over the VPN is met by Figures 4-6. Applicant respectfully disagrees. Applicant is unable to find anything in Arrow to support the inference that a management function is linked with the VPN unit using the VPN. As discussed above in connection with claim 11, the management function would be unable to communicate with VPN units to establish a VPN before the VPN is established.

Per claim 23, the Examiner asserts that Arrow discloses the means for managing the network device using a secure in-band management configuration as the encryption disclosed in column 7. Applicant respectfully disagrees. Nothing in column 7 discloses that the VPN Management Station 160 is a member of any VPN nor that management traffic is encrypted or sent over a VPN.

Per claim 24, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

Per claim 25, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

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Per claim 26, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

Per claim 27, the Examiner asserts that the "means+function" claims parallel claims 11-15 and that the claimed elements are met by configuring VPN unit 115 by station 160 to support a VPN, with means linking the management device 160 and its functionality to the VPN via port 908. Applicant respectfully disagrees. Applicant is unable to find anything in Arrow to support the inference that a management device and its function are linked with the VPN. As discussed above in connection with claim 11, the management device would be unable to communicate with VPN units to establish a VPN before the VPN is established.

Per claim 28, the Examiner asserts that Arrow discloses means for carrying management traffic for the network device using the VPN. As discussed above in connection with claim 11, the management device would be unable to communicate with VPN units to establish a VPN before the VPN is established.

Per claim 29, the Examiner asserts that Arrow discloses means for managing the network device using the management traffic carried on the VPN. As discussed above in connection with claim 11, the network device could not be managed to establish a VPN using VPN carried management traffic before the VPN is established.

Per claim 30, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

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Per claim 31, applicant relies on the patentability of the claims from which this claim

depends to traverse the rejection without prejudice to any further basis for patentability of this

claim based on the additional elements recited.

Per claims 32-41, claims are made to a machine-readable medium to carry out the method

as claimed in claims 1-5 and 11-15. The rejections of claims 32-41 are traversed on the same

basis as the traversal of claims 1-5 and 11-15 set forth above.

Per claim 42, the Examiner asserts that Arrow discloses the management traffic is sent

over the VPN (virtual private network) itself, citing Figure 1. Applicant respectfully disagrees.

Figure 1 shows a VPN Management Station 160 connected to a Public Network 100 and a

plurality of VPN Units, such as VPN Unit 115, connected to the Public Network 100. Applicant

is unable to find anything in Arrow to support the inference that management traffic is sent over

the VPN. A VPN operates over a public network. Col. 3, lines 3-4. Figure 1 of Arrow merely

shows that the VPN Management Station 160 is connected to the Public Network 100. This does

not show that the VPN Management Station 160 sends management traffic over the VPN. To

the contrary Arrow discloses that, "VPN management station 160 controls VPN units 115, 125

and 135 through commands and configuration information transmitted to the respective VPN

unit through public network 100." Col. 6, lines 31-34. One skilled in the art would reasonably

infer that the VPN Management Station 160 does not send management traffic over the VPN

because the Management Station provides commands for establishing a virtual private network

that operates over a public network. If the VPN Management Station 160 is used to establish a

virtual private network, the VPN Management Station cannot communicate with the VPN Units

to establish the VPN using the VPN that is not yet established.

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Per claim 43, the Examiner asserts that Arrow discloses the management traffic using secure in-band management due to the use of at least the encryption of column 7. Applicant respectfully disagrees. Nothing in column 7 discloses that the VPN Management Station 160 is a member of any VPN nor that management traffic is encrypted or sent over a VPN.

Per claim 44, the Examiner asserts that Arrow discloses a one or more management port 414 is linked with the VPN for management thereof. Applicant respectfully disagrees. Figure 4 shows a network communication port 414 connected to the public network 100. Applicant submits that nothing in Arrow discloses that the network communication port 414 is a management port as claimed.

Per claim 45, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

Per claim 46, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

Applicant respectfully requests that the Examiner withdraw the rejection of claims 1-5, 11-15, 16-21, 22-31, 32-41, and 42-46 under 35 U.S.C. § 102(e) as being anticipated by Arrow.

*Rejection Under 35 U.S.C. § 103*

5.      The Examiner rejects claims 6-10 under 35 U.S.C. § 103(a) as being unpatentable over Arrow et al. (6,175,917) in view of applicant's admitted prior art (APA).

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The Examiner asserts that Arrow sets forth a substantial portion of the claimed subject matter via the anticipation analysis such as applied to claims 1-5. The Examiner refers to Figure 4 of applicant's specification which shows a prior art router that includes a plurality of VPN input/output links at 422A-C. The Examiner asserts that it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a VPN unit 115 per the teachings of the APA Figure 4 so that it is possible to facilitate private communications on the particular router or the same modules on other routers.

Applicant respectfully disagrees that there is any suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings in the way suggested by the Examiner. Arrow teaches a system that provides a virtual private network operating over a public data network. There is no motivation to combine the teachings of APA with Arrow because the combination would not provide anything not already provided by the teachings of Arrow.

Second, applicant submits that there is no reasonable expectation of success in the proposed combination. Arrow teaches a system for loading an operating system in a VPN unit connected to a public network through commands and configuration information transmitted through the public network. Col. 6, lines 31-34. The proposed combination would transmit commands and configuration information over a VPN. However those commands and configuration information include information required to operate the VPN unit. Col. 9, lines 33-46. If the VPN unit receives management traffic from the VPN, that traffic can hardly be used to provide information required to operate the VPN unit.

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Finally, the prior art references when combined do not teach or suggest all the claim

limitations. Neither Arrow nor APA, singly or in combination, teach or suggest a routing and

forwarding module to receive management traffic over the VPN. Arrow instead teaches <u>away</u>

from receiving management traffic over the VPN because the Management Station provides

commands for <u>establishing</u> a virtual private network that operates over a public network. If the

VPN Management Station 160 is used to <u>establish</u> a virtual private network, the VPN Units 115

cannot receive management traffic over the VPN to establish the VPN using the VPN that is not

yet established.

Further, neither Arrow nor APA, singly or in combination, teach or suggest a

management module to receive the management traffic over the VPN. Arrow does not show a

management module. APA shows a management module 410 connected to receive management

traffic over the non-secure data links such as the core data links 420. Specification, page 4. The

internal management connection 411 between the management module 410 and the generic

routing and forwarding module 412 shown in APA is in great contrast to the inventive internal

management VPN link 711 between the management module 610 and the management VPN

module 655 shown in Figure 7. The external management VPN links 624 of Figure 6 are

likewise distinct from the disclosure of APA.

The rejections of claims 7-10 are further traversed on the same basis as claims 2-5

discussed above.

Applicant respectfully requests that the Examiner withdraw the rejection of claims 6-10

under 35 U.S.C. § 103(a) as being unpatentable over Arrow in view of APA.

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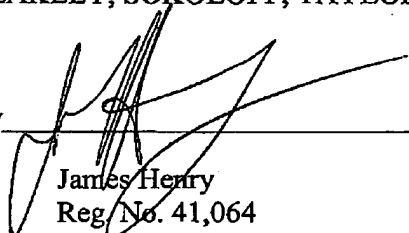Reply to Office Action of 05/19/2004

## *Conclusion*

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: 09/20/2004          By_____

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